

Serial No. 09/891,341

Steven Edward Atkin

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**Section I:**  
**AMENDMENT UNDER 37 CFR §1.121 to the**  
**CLAIMS**

Claim 1 (currently amended):

A method for determining a display sequence for converting a unidirectional domain name to a bidirectional domain name, said domain name having a plurality of labels separated by a label delimiter character, each label comprising at least one character, said domain name comprising a stream of characters from a first character to a last character, said method comprising the steps of:

establishing a plurality of labels within said by using a pre-determined full stop punctuation mark as a delimiter between said labels, said labels having an original label display order as encountered from left to right:

within each said label, performing inferencing through resolving the direction of indeterminate characters by assigning a strong direction left or right to each indeterminate character; and

reordering said characters within each said label of said unidirectional domain name into [[a]] character display order using the fully resolved characters previously inferred, thereby converting said uni-directional domain name to a bidirectional domain name in which said original label display order is preserved, and bidirectionality of characters within each label is produced.

Claim 2 (original):

The method as set forth in Claim 1 wherein said step of inferencing comprises the steps of:

first, assigning a right-to-left direction to Arabic and Hebrew letters;  
second, assigning a left-to-right direction to full stop characters and other alphabetic characters;

third, resolving the directions of digits; and

fourth, resolving the directions of hyphen-minus characters.

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## Claim 3 (original):

The method as set forth in Claim 2 wherein said step of resolving the directions of digits comprises the steps of:

- assigning a right-to-left direction to all Arabic numerals; and
- assigning a left-to-right direction to all European numerals, unless a European numeral is surrounded by right-to-left characters such as Arabic or Hebrew letters, in which case it is assigned a right-to-left direction.

## Claim 4 (original):

The method as set forth in Claim 2 wherein said step of resolving the directions of hyphen-minus characters comprises:

- assigning a left-to-right direction to all hyphen-minus characters which are not surrounded by characters whose direction is right-to-left; and
- assigning a right-to-left direction to all hyphen-minus characters which are surrounded by characters whose direction is right-to-left.

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## Claim 5 (currently amended):

A computer readable medium encoded with computer executable software for determining a display sequence for converting a unidirectional domain name to a bidirectional domain name, said domain name having a plurality of labels separated by a label delimiter character, each label comprising at least one character, said domain name comprising a stream of characters from a first character to a last character, said software when executed causing a computer to perform the steps of:

establishing a plurality of labels within said by using a pre-determined full stop punctuation mark as a delimiter between said labels, said labels having an original label display order as encountered from left to right;

within each said label, performing inferencing through resolving the direction of indeterminate characters by assigning a strong direction left or right to each indeterminate character; and

reordering said characters within each said label of said unidirectional domain name into [[a]] character display order using the fully resolved characters previously inferred, thereby converting said uni-directional domain name to a bidirectional domain name in which said original label display order is preserved, and bidirectionality of characters within each label is produced.

## Claim 6 (original):

The computer readable medium as set forth in Claim 5 wherein said software for inferencing comprises software for performing the steps of:

first, assigning a right-to-left direction to Arabic and Hebrew letters;  
second, assigning a left-to-right direction to full stop characters and other alphabetic characters;

third, resolving the directions of digits; and

fourth, resolving the directions of hyphen-minus characters.

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**Claim 7 (original):**

The computer readable medium as set forth in Claim 6 wherein said software for resolving the directions of digits comprises software for performing the steps of:

assigning a right-to-left direction to all Arabic numerals; and  
assigning a left-to-right direction to all European numerals, unless a European numeral is surrounded by right-to-left characters such as Arabic or Hebrew letters, in which case it is assigned a right-to-left direction.

**Claim 8 (original):**

The computer readable medium as set forth in Claim 6 wherein said software for resolving the directions of hyphen-minus characters comprises software for performing the steps of:

assigning a left-to-right direction to all hyphen-minus characters which are not surrounded by characters whose direction is right-to-left; and  
assigning a right-to-left direction to all hyphen-minus characters which are surrounded by characters whose direction is right-to-left.

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## Claim 9 (currently amended):

A system for converting determining a display sequence for characters of a unidirectional domain name to a bidirectional domain name, said domain name having a plurality of labels separated by a label delimiter character, each label comprising at least one character, said domain name comprising a stream of characters from a first character to a last character, said system comprising:

a label definer adapted to establish a plurality of labels within said by using a pre-determined full stop punctuation mark as a delimiter between said labels, said labels having an original label display order as encountered from left to right;

an inferencer adapted to, within each said label, resolve the direction of indeterminate characters by assigning a strong direction left or right to each indeterminate character; and

a character reorderer adapted to re-sequence reorder said characters within each said label of said unidirectional domain name into [[a]] character display order using the fully resolved characters previously inferred, thereby converting said uni-directional domain name to a bidirectional domain name in which said original label display order is preserved, and bidirectionality of characters within each label is produced.

## Claim 10 (original):

The system as set forth in Claim 9 wherein said inferencer comprises:

a first direction assignor for assigning a right-to-left direction to Arabic and Hebrew letters;

a second direction assignor for assigning a left-to-right direction to full stop characters and other alphabetic characters;

a third direction assignor for resolving the directions of digits; and

a fourth direction assignor for resolving the directions of hyphen-minus characters.

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The system as set forth in Claim 10 wherein said third direction assignor comprises:

    a right-to-left direction assignor for all Arabic numerals, and for all European numerals which are surrounded by right-to-left characters such as Arabic and Hebrew letters; and

    a left-to-right direction assignor for all European numerals which are not surrounded by right-to-left characters such as Arabic or Hebrew letters.

**Claim 12 (original):**

The system as set forth in Claim 10 wherein said fourth direction assignor comprises:

    a left-to-right direction assignor for all hyphen-minus characters which are not surrounded by characters whose direction is right-to-left; and

    a right-to-left direction assignor for all hyphen-minus characters which are surrounded by characters whose direction is right-to-left.

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The method as set forth in Claim 1 wherein said pre-determined full stop punctuation mark used as a delimiter between said labels comprises a Latin period punctuation mark.

**Claim 14 (new):**

The computer-readable medium as set forth in Claim 5 wherein said pre-determined full stop punctuation mark used as a delimiter between said labels comprises a Latin period punctuation mark.

**Claim 15 (new):**

The system as set forth in Claim 9 wherein said pre-determined full stop punctuation mark used as a delimiter between said labels comprises a Latin period punctuation mark.

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